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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/659,834	09/10/2003	Tamio Saito	ESMART-0003	5947
7590	08/24/2006		EXAMINER	
David B. Ritchie Thelen Reid & Priest LLP P.O. Box 640640 San Jose, CA 95164			HOFFMAN, BRANDON S	
			ART UNIT	PAPER NUMBER
			2136	

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/659,834		SAITO ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Brandon S. Hoffman		2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 July 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3,6,9-15,17-39 and 42-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3,6,9-15,17-39 and 42-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 3-6, 9-15, and 17-55 are pending in this actions, claims 29-55 are newly added.

### *Rejections*

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

3. Claims 3, 6, 9-13, 18, 20, 24, 25, 27-34, 39, 42, 43, 45, 47-49, 51, 53, 54, 56, and 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of either [Beatson et al. (U.S. Patent No. 5,892,824) and McPhillie et al. (UK Patent Application No. GB 2 2336 005 A)]. The independent claims are very similar, only varying in the details taught by each of the references listed above. Because of this, examiner shows the teachings of each independent claim separately, but groups the dependent claims together.

Regarding claim 3, Shen teaches an intelligent identification card comprising:

- An on-board memory for storing reference data (fig. 1, ref. num 11);
- An on-board sensor for capturing live biometric data (fig. 1, ref. num 12);

- An on-board microprocessor for comparing the captured biometric data with corresponding stored reference data within a predetermined threshold and for generating a verification message only if there is a match within a predetermined threshold (fig. 1, ref. num 14 and col. 3, lines 9-21); and
- An interface for communicating the verification message to an external network (fig. 1, ref. num 13).

Shen does not teach wherein the verification message includes at least excerpts from the captured biometric data, **the verification message being transmitted to a remote authentication system for additional verification using reference data which is different from the reference data stored on said on-board memory.**

Beatson et al. teaches wherein the verification message includes at least excerpts from the captured biometric data (col. 6, lines 39-45), **the verification message being transmitted to a remote authentication system for additional verification using reference data which is different from the reference data stored on said on-board memory** (col. 6, lines 39-45).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine including an excerpt from the captured biometric data in the verification message, as taught by Beatson et al., with the apparatus of Shen. It would have been obvious for such modifications because the supplied biometric data is

used to determine if the identity of the user is verified and provides an audit trail of actual users.

Regarding claim 30, Shen teaches an intelligent identification card comprising:

- An on-board sensor for capturing live biometric data (fig. 1, ref. num 12);
- A first on-board processor coupled with said on-board sensor (fig. 1, ref. num 14), said first on-board processor including a memory storing reference data (fig. 1, ref. num 11), said first on-board processor comparing the captured biometric data with corresponding stored reference data within a predetermined threshold and generating a verification message only if there is a match within a predetermined threshold (col. 3, lines 9-21); and
- An interface coupled to either one of said first on-board processor and said second on-board processor, for communicating with an external network (fig. 1, ref. num 13 and col. 3, lines 31-36).

Shen does not teach a second on-board processor coupled with said first on-board processor, for executing intelligent card functions, **the verification message enabling said second on-board processor.**

McPhillie et al. teaches a second on-board processor coupled with said first on-board processor, for executing intelligent card functions (fig. 4, ref. num 119), **the**

**verification message enabling said second on-board processor** (page 5, lines 3-22).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a second on-board processor for executing intelligent card functions, as taught by McPhillie et al., with the apparatus of Shen. It would have been obvious for such modifications because utilizing a second co-processor for a specific purpose makes the processor faster.

Regarding claims 39 and 53, Shen teaches a method/apparatus for identifying a user of an intelligent identification card, the intelligent identification card including an on-board memory storing reference data and an on-board biometric sensor (fig. 1, ref. num 11 and 12), said method/apparatus comprising:

- Capturing live biometric data using the on-board sensor (fig. 1, ref. num 12);
- Comparing the captured biometric data with corresponding reference data stored in the on-board memory within a predetermined threshold (col. 3, lines 9-16);
- Generating a verification message only if there is a match within a predetermined threshold (col. 3, lines 16-21); and
- Communicating the verification message to an external network (fig. 1, ref. num 13).

Shen does not teach the verification message including at least excerpts from the captured biometric data, Additionally verifying the user at a remote authentication system using reference data which is different from the reference data stored on said on-board memory.

Beatson et al. teaches the verification message including at least excerpts from the captured biometric data, additionally verifying the user at a remote authentication system using reference data which is different from the reference data stored on said on-board memory (col. 6, lines 39-45).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine including an excerpt from the captured biometric data in the verification message, as taught by Beatson et al., with the apparatus of Shen. It would have been obvious for such modifications because the supplied biometric data is used to determine if the identity of the user is verified and provides an audit trail of actual users.

Regarding claims 45 and 54, Shen teaches a method/apparatus for identifying a user of an intelligent identification card, the intelligent identification card including an on-board memory storing reference data (fig. 1, ref. num 11), an on-board biometric sensor (fig. 1, ref. num 12), and an ISO card processor (fig. 1, ref. num 14), said method/apparatus comprising:

- Capturing live biometric data using the on-board sensor (fig. 1, ref. num 12);
- Comparing, the captured biometric data with corresponding reference data stored in the on-board memory within a predetermined threshold (col. 3, lines 9-16);
- Generating, using the security processor, a verification message only if there is a match within a predetermined threshold (col. 3, lines 16-21); and
- Allowing operation of the ISO card processor if the identity of the user is verified (col. 3, lines 20-21).

Shen does not teach using a security processor to perform the comparing, **the verification message enabling the ISO card processor**.

McPhillie et al. teaches using a security processor to perform the comparing (fig. 4, ref. num 119), **the verification message enabling the ISO card processor** (page 5, lines 3-22).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine using a security processor to perform the comparing, as taught by McPhillie et al., with the apparatus of Shen. It would have been obvious for such modifications because utilizing a second co-processor for a specific purpose makes the processor faster.



Regarding claims 6 and 42, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the on-board microprocessor uses a different matching algorithm than that used at the remote authentication system (see col. 4, lines 3-8 of Shen).

Regarding claim 9, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the card is ISO Smartcard compatible (see col. 1, lines 6-20 of Shen).

Regarding claims 10 and 31, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein said on-board processor is a security processor for storing and processing the protected biometric data, and wherein said identification card further comprises an ISO Smartcard processor (see fig. 4, ref. num 119 of McPhillie and col. 1, lines 6-20 of Shen, a smartcard that would be used to replace all other cards would inherently be compatible to the ISO standard).

Regarding claims 11-13, 32-34, 47, and 48, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the security processor is functionally separated from the ISO Smartcard processor by a firewall, all external data to and from the security processor passes through the ISO Smartcard processor, and all external data to and from the ISO Smartcard processor passes through the security processor (see fig. 3-5 and page 7, line 7 through page 12, line 21 of McPhillie et al.).

Regarding claims 18 and 49, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the biometric data includes fingerprint data and the sensor is a fingerprint sensor which captures data from a user's finger placed on the sensor (see fig. 1, ref. num 12 of Shen).

Regarding claims 20 and 51, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the matching process utilizes a hybrid matching algorithm that takes into account both minutiae and overall spatial relationships in the captured biometric data (see col. 3, lines 42-57 of Shen).

Regarding claim 24, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the card further comprises means for restricting use of the card to a predetermined location (see col. 1, lines 6-14 of Shen).

Regarding claims 25 and 43, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein at least some of the captured biometric data and the reference data are transmitted to a separate authentication server for secure verification of a user's identity prior to any grant of on-line access to an application server for processing of secure financial transactions involving that user (see col. 3, lines 28-36 of Shen).

Regarding claim 27, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the output from the card is used to obtain physical access into a secure area (see col. 1, lines 9-12 of Shen).

Regarding claim 28, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein a record of successful and unsuccessful access attempts is maintained on the card (see col. 4, lines 8-17 of Shen).

Regarding claims 29 and 56, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein said interface includes at least one of an electrical contact interface and a wireless communication interface (see fig. 1, ref. num 13 of Shen).

Regarding claim 60, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein said communicating the verification message includes at least one of communicating via a [wireless/wired] interface coupled to the ISO card processor (see fig. 1, ref. num 13 of Shen).

Claims 14, 15, 35, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Cassista et al. (U.S. Patent Pub. No. 2002/0007459).

Regarding claims 14, 15, 35, and 46, Shen as modified by [Beatson et al./McPhillie et al.] teaches all the limitations of claims 3, 9, 10, & 30, 31, 34, & 45, above. However, Shen as modified by [Beatson et al./McPhillie et al.] does not teach the security processor has a first connection used for loading data during a loading process and a second connection connected to an external network and the first connection is permanently disabled after the loading process has been completed.

Cassista et al. teaches the security processor has a first connection used for loading data during a loading process and a second connection connected to an external network and the first connection is permanently disabled after the loading process has been completed (paragraph 0120).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine two connections on the card, one that is disabled after the initial loading is completed, as taught by Cassista et al., with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because disabling the connection path helps limit the amount of battery draw from the circuit because there is no need to transmit data across that disabled line (paragraph 0120 of Cassista et al.).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Powell (U.S. Patent No. 6,456,980).

Regarding claim 17, Shen as modified by [Beatson et al./McPhillie et al.] teaches wherein the biometric sensor is a fingerprint sensor (see col. 3, lines 9-12 of Shen); and the security processor, the ISO Smartcard processor and the fingerprint sensor are all located in a middle region between the upper region and the lower region (see fig. 1 of Shen).

Shen as modified by [Beatson et al./McPhillie et al.] does not specifically teach the card comprises an upper magnetic stripe region and a lower embossed region.

Powell teaches the card comprises an upper magnetic stripe region and a lower embossed region (fig. 5A and 5B and col. 4, line 61 through col. 5, line 5).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an upper magnetic region and a lower embossed region, as taught by Powell, with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because the upper magnetic region allows for conventional credit card readers to read the card and the lower embossed region allows the users name to be displayed (see col. 5, lines 1-5 of Powell).

Claims 19, 38, 50, 52, and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Setlak et al. (U.S. Patent No. 5,852,670).

Regarding claims 19, 38, 50, 53, and 55, Shen as modified by [Beatson et al./McPhillie et al.] teaches all the limitations of claims 3, 18, 45, 49, and 54, respectively, above. However, Shen as modified by [Beatson et al./McPhillie et al.] does not teach further comprising an indicator providing real-time feedback for finger placement while the user is manipulating his or her finger over the fingerprint sensor, thereby facilitating an adequate placement of the finger over the sensor.

Setlak et al. teaches further comprising an indicator providing real-time feedback for finger placement while the user is manipulating his or her finger over the fingerprint sensor, thereby facilitating an adequate placement of the finger over the sensor (fig. 25, ref. num 39)

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an indicator for providing feedback for finger placement, as taught by Setlak et al., with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because the feedback ensures proper placement for an accurate reading of the finger.

Art Unit: 2136

Claims 21-23, 57-59, and 61-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Neuhaus et al. (U.S. Patent No. 6,853,087).

Regarding claims 21-23, Shen as modified by [Beatson et al./McPhillie et al.] teaches all the limitations of claims 3 and 18, above. However, Shen as modified by [Beatson et al./McPhillie et al.] does not teach wherein the fingerprint sensor comprises a sheet of crystalline silicon supported by a backing plate, the backing plate comprises a glass epoxy layer sandwiched between two metal layers, and the backing plate is reinforced by a carrier frame surrounding the sheet of silicon.

Neuhaus et al. teaches wherein the fingerprint sensor comprises a sheet of crystalline silicon supported by a backing plate, the backing plate comprises a glass epoxy layer sandwiched between two metal layers, and the backing plate is reinforced by a carrier frame surrounding the sheet of silicon (col. 4, line 62 through col. 5, line 17).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine a silicon fingerprint sensor, epoxy backing, and reinforcing the backing by a carrier frame, as taught by Neuhaus et al., with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because the materials used provide protection of the chip.

Regarding claims 57 and 61, Shen as modified by [Beatson et al./McPhillie et al.] and Neuhaus et al. teaches wherein said wireless interface is an ISO compatible antenna providing both data and power transmissions (see fig. 9E, ref. num 928 of Neuhaus et al.).

Regarding claims 58 and 62, Shen as modified by [Beatson et al./McPhillie et al.] and Neuhaus et al. teaches wherein said interface further includes a security antenna coupled to said first on-board processor via a power circuit, said security antenna only providing power to said first on-board processor (see fig. 9E, ref. num 928 of Neuhaus et al.).

Regarding claims 59 and 63, Shen as modified by [Beatson et al./McPhillie et al.] and Neuhaus et al. teaches wherein said security antenna also provides power to said on-board sensor via the power circuit (see fig. 9E, ref. num 928 of Neuhaus et al.).

Claims 26 and 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Krajewski et al. (U.S. Patent No. 5,590,199).

Regarding claims 26 and 44, Shen as modified by [Beatson et al./McPhillie et al.] teaches all the limitations of claims 3, 25 & 39, above. However, Shen as modified by [Beatson et al./McPhillie et al.] does not teach wherein in response to a match request



relating to a particular logon attempt at a particular application server which produces a positive match at the authentication server, a secure three-way authentication protocol is executed in which a challenge character sequence is sent from the authentication sever to the identification card as, the identification card then uses the challenge character sequence and the match request to generate a challenge response which it then forwards to the application server, the application server then forwards the challenge response to the authentication server, which then verifies whether the challenge response is valid.

Krajewski et al. teaches wherein in response to a match request relating to a particular logon attempt at a particular application server which produces a positive match at the authentication server, a secure three-way authentication protocol is executed in which a challenge character sequence is sent from the authentication sever to the identification card as, the identification card then uses the challenge character sequence and the match request to generate a challenge response which it then forwards to the application server, the application server then forwards the challenge response to the authentication server, which then verifies whether the challenge response is valid (col. 6, line 37 through col. 7, line 23).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine in response to a match request relating to a particular logon attempt at a particular application server which produces a positive match at the

authentication server, a secure three-way authentication protocol is executed which verifies whether the challenge response is valid, as taught by Krajewski et al., with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because challenge/response systems allow devices to verify a secret without having to exchange the secret in the clear. It would be useful to do this because the devices can ensure security without having to establish a common secret beforehand.

Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shen (E.P. No. 1,074,949) in view of [Beatson et al./McPhillie et al.], and further in view of Berney (U.S. Patent Pub. No. 2003/0046228).

Regarding claim 36, Shen as modified by [Beatson et al./McPhillie et al.] teaches all the limitations of claim 30, above. However, Shen as modified by [Beatson et al./McPhillie et al.] does not teach further comprising an on-board location detector for determining current location of the identification card and means for restricting use of the card based on the detected location.

Berney teaches further comprising an on-board location detector for determining current location of the identification card and means for restricting use of the card based on the detected location (paragraph 0040).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine an on-board location detector for means for restricting use of the card, as taught by Berney, with the card of Shen/[Beatson et al./McPhillie et al.] It would have been obvious for such modifications because the GPS helps add another tier of security by restricting access to certain physical areas (see paragraph 0040 of Berney).

Regarding claim 37, Shen as modified by [Beatson et al./McPhillie et al.] and Berney teaches wherein said on-board location detector includes a GPS signal receiver (see paragraph 0040 of Berney).

### ***Response to Arguments***

4. Applicant amends claims 3, 30, 38, 39, 45, and 52-55.
5. Applicant argues:
  - a. Claims 3, 39, and 53 are allowable over Shen and Ritter because they fail to teach the verification message including excerpts from the captured biometric data (page 19, last paragraph through page 23).
  - b. Claims 30, 45, and 54 are allowable over Shen and McPhillie because they fail to teach a second security processor coupled to a first processor (page 24 through page 27, third paragraph).
  - c. The dependent claims are allowable based on their dependencies on the independent claims (page 27, last paragraph).

Regarding argument (a), examiner disagrees with applicant. This argument is moot in view of the new ground of rejection.

Regarding argument (b), examiner disagrees with applicant. McPhillie shows (figure 3 and 4) a processor and a security processor on the same circuit. Applicant argues that the entire integrated circuit is the processor, and the processor and security processor are just emulation "processors" under control of the real processor (IC). While this is true, the claim calls for a card that contains two processors, one of which being secure. This is taught by the figures in McPhillie.

Regarding argument (c), examiner disagrees with applicant. Based on the response by the examiner to arguments (a) and (b), above, the dependent claims stand as rejected.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser G. Moazzami can be reached on 571-272-4195. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Brandon N/H*

BH

**NASSER MOAZZAMI**  
**PRIMARY EXAMINER**  
*8/22/06*